

## **Appendix D: Glossary of Environmental Terms**

## ATSDR Plain Language Glossary of Environmental Health Terms

### Adverse Health

**Effect:** A change in body function or the structures of cells that can lead to disease or health problems.

**ATSDR:** The Agency for Toxic Substances and Disease Registry. ATSDR is a federal health agency in Atlanta, Georgia that deals with hazardous substance and waste site issues. ATSDR gives people information about harmful chemicals in their environment and tells people how to protect themselves from coming into contact with chemicals.

### Background

**Level:** An average or expected amount of a chemical in a specific environment; or, amounts of chemicals that occur naturally in a specific environment.

**Cancer:** A group of diseases which occur when cells in the body become abnormal and grow, or multiply, out of control

**Carcinogen:** Any substance shown to cause tumors or cancer in experimental studies.

**CERCLA:** See **Comprehensive Environmental Response, Compensation, and Liability Act**.

**Chronic Exposure:** A contact with a substance or chemical that happens over a long period of time. ATSDR considers exposures of more than one year to be *chronic*.

### Completed Exposure

**Pathway:** See **Exposure Pathway**.

### Comparison Value:

**(CVs)** Concentrations or the amount of substances in air, water, food, and soil that are unlikely, upon exposure, to cause adverse health effects. Comparison values are used by health assessors to select which substances and environmental media (air, water, food, and soil) need additional evaluation while health concerns or effects are investigated.

### Comprehensive Environmental Response, Compensation, and Liability

**Act (CERCLA):** CERCLA was put into place in 1980. It is also known as Superfund. This act concerns releases of hazardous substances into the environment, and the cleanup of these substances and hazardous waste sites. ATSDR was created by this act and is responsible for looking into the health issues related to hazardous waste sites.



**Concern:** A belief or worry that chemicals in the environment might cause harm to people.

**Concentration:** How much or the amount of a substance present in a certain amount of soil, water, air, or food.

**Contaminant:** See **Environmental Contaminant**.

**Dermal Contact:** A chemical getting onto your skin. (see **Route of Exposure**).

**Dose:** The amount of a substance to which a person may be exposed, usually on a daily basis. Dose is often explained as the amount of a substance(s) per body weight per day.

**Duration:** The amount of time (days, months, years) that a person is exposed to a chemical.

### **Environmental**

**Contaminant:** A substance (chemical) that gets into a system (person, animal, or the environment) in amounts higher than that found in Background Level, or what would be expected.

### **Environmental**

**Media:** Usually refers to the air, water, and soil in which chemical of interest are found. Sometimes refers to the plants and animals that are eaten by humans. Environmental Media is the second part of an Exposure Pathway.

### **U.S. Environmental**

**Protection Agency (EPA):** The federal agency that develops and enforces environmental laws to protect the environment and the public's health.

**Epidemiology:** The study of the different factors that determine how often, in how many people, and in which people a disease will occur.

**Exposure:** Coming into contact with a chemical substance. (For the three ways people can come in contact with substances, see **Route of Exposure**).

### **Exposure**

**Assessment:** The process of finding the ways people come in contact with chemicals, how often and how long they come in contact with chemicals, and the amounts of chemicals with which they come in contact.

**Exposure Pathway:** A description of the way that a chemical moves from its source (where it began) to where and how people can come into contact with (or get exposed to) the chemical.

ATSDR defines an exposure pathway as having 5 parts:

1. Source of Contamination,
2. Environmental Media and Transport Mechanism,
3. Point of Exposure,
4. Route of Exposure, and
5. Receptor Population.

When all 5 parts of an exposure pathway are present, it is called a Completed Exposure Pathway. Each of these five terms is defined in this Glossary.

**Frequency:** How often a person is exposed to a chemical over time; for example, every day, once a week, and twice a month.

**Hazardous Waste:** Substances that have been released or thrown away into the environment, and under certain conditions, could be harmful to people who come into contact with them.

**Health Effect:** ATSDR deals only with Adverse Health Effects (see definition in this Glossary).

**Indeterminate Public**

**Health Hazard:** The category is used in Public Health Assessment documents for sites where important information is lacking (missing or has not yet been gathered) about site-related chemical exposures.

**Ingestion:** Swallowing something, as in eating or drinking. It is a way a chemical can enter your body (See **Route of Exposure**). Breathing. It is a way a chemical can enter your body (See **Route of Exposure**).

**MRL: Minimal Risk Level.** An estimate of daily human exposure by a specified route and length of time to a dose of chemical that is likely to be without a measurable risk of adverse, noncancerous effects. An MRL a predictor of adverse health effects.

**NPL: The National Priorities List.** (Which is part of Superfund.) A list kept by the U.S. Environmental Protection Agency (EPA) of the most serious, uncontrolled, or abandoned hazardous waste sites in the country. An NPL site needs to be cleaned up or is being looked at to see if people can be exposed to chemicals from the site.

**No Apparent Public**

**Health Hazard:** The category is used in ATSDR's Public Health Assessment documents for sites where exposure to site-related chemicals may have occurred in the past or is still occurring but the exposures are not at levels expected to cause adverse health effects.

**No Public**

**Health Hazard:** The category is used in ATSDR's Public Health Assessment document for sites where there is evidence of an absence of exposure to site-related chemicals.

**PHA: Public Health Assessment.** A report or document that looks at chemicals at a hazardous waste site and tells if people could be harmed from coming into contact with those chemicals. The PHA also tells if possible further public health actions are needed.

**Point of Exposure:** The place where someone can come into contact with a contaminated environmental medium (air, water, food, or soil). For examples: the area of a playground that has contaminated dirt, a contaminated spring used for drinking water, the location where fruits or vegetables are grown in contaminated soil, or the backyard area where someone might breathe contaminated air.

**Population:** A group of people living in a certain area; or the number of people in a certain area.

**PRP: Potentially Responsible Party.** A company, government, or person that is responsible for causing the pollution at a hazardous waste site. PRPs are expected to help pay for the clean up of a site.

**Public Health Assessment(s):** See **PHA**.

### **Public Health**

**Hazard:** The category is used in PHAs for sites that have certain physical features or evidence of chronic, site-related chemical exposure that could result in adverse health effects.

### **Public Health**

**Hazard Criteria:** PHA categories given to a site which tell whether people could be harmed by conditions present at the site. Each are defined in the Glossary. The categories are:

**Urgent Public Health Hazard**  
**Public Health Hazard**  
**Indeterminate Public Health Hazard**  
**No Apparent Public Health Hazard**  
**No Public Health Hazard**

### **Receptor**

**Population:** People who live or work in the path of one or more chemicals, and who could come into contact with them (See **Exposure Pathway**).

### **Reference Dose**

**(RfD):** An estimate, with safety factors (see **Safety Factor**) built in, of the daily, life-time exposure of human populations to a possible hazard that is not likely to cause harm to the person.

**Route of Exposure:** The way a chemical can get into a person's body. There are three exposure routes:

- breathing (also called inhalation),
- eating or drinking (also called ingestion), and
- or getting something on the skin (also called dermal contact).

**Safety Factor:** Also called Uncertainty Factor. When scientists don't have enough information to decide if an exposure will cause harm to people, they use safety factors and formulas in place of the information that is not known. These factors and formulas can help determine the amount of a chemical that is not likely to cause harm to people.

**SARA: The Superfund Amendments and Reauthorization Act** in 1986 amended CERCLA and expanded the health-related responsibilities of ATSDR. CERCLA and SARA direct ATSDR to look into the health effects from chemical exposures at hazardous waste sites.

**Source**

**(of Contamination):** The place where a chemical comes from, such as a landfill, pond, creek, incinerator, tank, or drum. Contaminant source is the first part of an Exposure Pathway.

**Superfund Site:** See NPL.

**Survey:** A way to collect information or data from a group of people (population). Surveys can be done by phone, mail, or in person. ATSDR cannot do surveys of more than nine people without approval from the U.S. Department of Health and Human Services.

**Toxic:** Harmful. Any substance or chemical can be toxic at a certain dose (amount). The dose is what determines the potential harm of a chemical and whether it would cause someone to get sick.

**Toxicology:** The study of the harmful effects of chemicals on humans or animals.

**Tumor:** Abnormal growth of tissue or cells that have formed a lump or mass.

**Urgent Public**

**Health Hazard:** This category is used in ATSDR's Public Health Assessment documents for sites that have certain physical features or evidence of short-term (less than 1 year), site-related chemical exposure that could result in adverse health effects and require quick intervention to stop people from being exposed.